

Product Data Sheet



Aesthetic Description

Solarban® 60 solar control, low-e glass by Vitro Architectural Glass (formerly PPG Glass) was engineered to control solar heat gain, which is essential to minimizing cooling costs. In a standard one-inch insulating glass unit (IGU), *Solarban*® 60 glass offers an exterior appearance similar to clear, uncoated glass.

With a very good Solar Heat Gain Coefficient (SHGC) of 0.39, *Solarban*® 60 glass blocks 66 percent of the total solar energy while allowing 70 percent of the visible light to pass through. This combination produces an excellent Light to Solar Gain (LSG) ratio of 1.79, along with exceptional insulating performance, as evidenced by its 0.29 winter nighttime U-value.

Aesthetic Options

Solarban® 60 glass can be coated on *Starphire*® glass and paired with *Starphire*® glass to produce an IGU with exceptional clarity and solar control characteristics. For even more color and performance options, it can be coated on the second (#2) surface of nearly all Vitro's wide range of tinted glasses. It also can be combined in an IGU with any Vitro tinted glass, *Solarcool*® reflective glass or *Vistacool*® subtly reflective, color-enhanced glass (see performance data on back page).



Prudential Center

Location: Newark, NJ | Product: *Solarban*® 60 Glass | Architect: Morris Adjmi Architects | Glass Contractor: Josloff Glass | Glass Fabricator: J.E. Berkowitz, LP

Supporting Sustainable Design

Vitro Architectural Glass provides abundant opportunities for architects and building owners to realize their sustainability objectives.

Energy Use & Operating Cost Reduction: An energy modeling study conducted by an independent energy design and consulting firm showed that a building can potentially save millions of dollars over its lifetime with *Solarban*® 60 glass instead of less advanced glasses. The study showed that by substituting *Solarban*® 60 glass instead of dual-pane tinted glass, a typical glass-walled, eight-story office building in Boston could lower its initial HVAC investment by nearly \$350,000 and its annual energy costs by more than

\$80,000. Carbon emissions from the same building also were reduced by more than 300 tons per year.

Sustainability Documentation: Vitro Architectural Glass is the first U.S. float glass manufacturer to have its entire selection of products recognized by the *Cradle to Cradle Certified*™ program, and the first in North America to publish third-party verified EPDs for its Flat Glass and Processed Glass products.

For additional credit opportunities and supporting documentation, visit vitroglazings.com/LEED

LEED Credit Opportunities

Possible Points	LEED Credit	<i>Solarban</i> ® 60 Feature	Path/Option Satisfied
18	Energy & Atmosphere (EA) Optimize Energy Performance	Excellent SHGC, U-value and Tvis performance	Whole Building Energy Simulation (Option 1) or Prescriptive Compliance: ASHRAE Advanced Energy Design Guide (Option 2)
5	Innovation (IN) Innovation in Design	Exceeds minimum performance mandated by local energy codes	Innovation (Option 1), Pilot (Option 2) and Exemplary Performance (Option 3)
3	Indoor Environmental Quality (EQ) Daylight	Exhibits high light transmission	Simulation: Spatial Daylight Autonomy and Annual Sunlight Exposure (Option 1), Simulation: Illuminance Calculations (Option 2) or Measurement (Option 3)

Solarban® 60 Glass

Fabrication and Availability

Solarban® 60 glass is available exclusively through the Vitro Certified™ Network. Vitro Certified™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. Solarban® 60 glass is manufactured using the sputter-coating process and is available for annealed, laminated, heat-strengthened and tempered applications.

Request Samples

To obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (877-6457) or visit samples.vitroglazings.com.

Insulating Glass Unit Performance Comparisons | 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites

Outdoor Lite: Coating if Any (Surface) Glass	Glass Type + Indoor Lite: Coating if Any (Surface) Glass	Visible Light Transmittance (VLT)	Visible Light Reflectance		(BTU/hr ² ft ² °F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)
			Exterior %	Interior %	Winter Nighttime	Winter Argon		

Solarban® 60 Solar Control Low-E Glass

Solarban® 60 (2) Clear + Clear	70	11	12	0.29	0.24	0.39	1.79
Solarban® 60 (2) Starphire® + Starphire®	74	11	12	0.29	0.24	0.41	1.80
Solarban® 60 (2) Solexia® + Clear	61	9	12	0.29	0.24	0.32	1.91
Solarban® 60 (2) Atlantica® + Clear	53	8	11	0.29	0.24	0.27	1.96
Solarban® 60 (2) Azuria® + Clear	54	8	11	0.29	0.24	0.28	1.93
Solarban® 60 (2) Solarblue® + Clear	45	7	11	0.29	0.24	0.28	1.61
Solarban® 60 (2) Pacifica® + Clear	34	6	10	0.29	0.24	0.22	1.55
Solarban® 60 (2) Solarbronze® + Clear	42	7	11	0.29	0.24	0.28	1.50
Solarban® 60 (2) Optigray® + Clear	50	8	11	0.29	0.24	0.30	1.67
Solarban® 60 (2) Solargray® + Clear	35	6	10	0.29	0.24	0.25	1.40
Solexia® + Solarban® 60 (3) Clear	61	10	10	0.29	0.24	0.37	1.65
Atlantica® + Solarban® 60 (3) Clear	53	9	10	0.29	0.24	0.31	1.71
Azuria® + Solarban® 60 (3) Clear	54	9	10	0.29	0.24	0.31	1.74
Solarblue® + Solarban® 60 (3) Clear	45	7	9	0.29	0.24	0.33	1.36
Pacifica® + Solarban® 60 (3) Clear	34	6	9	0.29	0.24	0.25	1.36
Solarbronze® + Solarban® 60 (3) Clear	42	7	9	0.29	0.24	0.32	1.31
Optigray® + Solarban® 60 (3) Clear	50	8	9	0.29	0.24	0.35	1.43
Solargray® + Solarban® 60 (3) Clear	35	7	9	0.29	0.24	0.29	1.21
GraylitE II + Solarban® 60 (3) Clear	7	4	8	0.29	0.24	0.13	0.54

Vistacool® and Solarcool® with Solarban® 60 Solar Control Low-E (3)*

Vistacool® (2) Azuria® + Solarban® 60 (3) Clear	42	20	24	0.29	0.24	0.26	1.62
Vistacool® (2) Pacifica® + Solarban® 60 (3) Clear	26	11	23	0.29	0.24	0.21	1.24
Solarcool® (2) Solexia® + Solarban® 60 (3) Clear	24	24	29	0.29	0.24	0.19	1.26
Solarcool® (2) Azuria® + Solarban® 60 (3) Clear	21	19	29	0.29	0.24	0.17	1.24
Solarcool® (2) Solarblue® + Solarban® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) Pacifica® + Solarban® 60 (3) Clear	13	10	29	0.29	0.24	0.15	0.87
Solarcool® (2) Solarbronze® + Solarban® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) Solargray® + Solarban® 60 (3) Clear	14	11	29	0.29	0.24	0.17	0.82

* Data based on using Starphire® glass for both interior and exterior lites.

All performance data calculated using LBNL Window 7.3 software and represents center of glass performance data. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit www.pgideas.com or request our Architectural Glass Catalog.

For more information about Solarban® 60 low-e glass and other Cradle to Cradle Certified™ architectural glasses by Vitro Glass, visit vitroglazings.com, or call 1-855-VTRO-GLS (887-6457).

